

Chapter Three: IMAGE WINDOWS

There are many different types of data displayed in the image windows, including **radial velocity**, **storm relative velocity**, **reflectivity**, **spectrum width**, **composite reflectivity**, **vertically integrated liquid**, and **accumulated precipitation**. Though each type of window may display different types of data or products, they have many elements in common, such as **product overlays**, **maps**, **polar grids**, **meteorological algorithm output**, **zooming** capability; **trends and trend sets**, the ability to **view raw data** value, and other features.

The different types of image windows are:

Velocity **Radial Velocity:** **Radial velocity image**, accessed by activating the **Velocity** button, is located on the **VEL** **(Velocity) pop-up menu** on the **RADS Control Panel**.

StmRIVel **Storm Relative Velocity:** **Storm relative velocity image**, accessed by activating the **StmRIVel** button, is located on the **VEL** **(Velocity) pop-up menu** on the **Control Panel**. By default, the motion vector subtracted from the velocity images is the average motion vectors of the storm cells as detected from the previous volume scan. Users may subtract their own vector from the image for enhancement of storm feature signatures by using the **Storm Motion** feature in the **Prefer** menu on the **RADS Control Panel**. The motion vector used to create the storm-relative velocity image is shown in yellow on the lower right of the image.

SW **Spectrum Width:** Depressing this button on the **RADS Control Panel** displays a **Spectrum Width velocity image**.

Reflectivity **Reflectivity:** A **reflectivity image** is accessed by activating the **Reflectivity** button located on the **REF** **(Reflectivity) pop-up menu** on the **Rads Control Panel**.

Comp Refl **Composite Reflectivity:** A composite reflectivity image is accessed by activating the **Comp Refl** button located on the **REF** **(Reflectivity) pop-up menu** on the **RADS Control Panel**. This is a calculated image which displays, for each grid point, the maximum reflectivity value within the vertical column overlaying the grid point.

- Template** **Template:** This image has a **template**, or solid-colored, background and no base radar data displayed. It is used for detailed examination of product and **algorithm overlays**, with no underlaid data.
- 1 Hr Pcp** **One-Hour Precipitation:** Displays the calculated total **one-hour precipitation** from the **WSR-88D Build 9.0 Precipitation algorithm**. This feature is accessed using the **1 Hr Pcp** button on the **PRECIP** **pop-up menu**, located on the **RADS Control panel**.
- 3 Hr Pcp** **Three-Hour Precipitation:** Displays the calculated total **three-hour precipitation** from the **WSR-88D Build 9.0 Precipitation algorithm**. This feature is accessed from the **3 Hr Pcp** button on the **PRECIP** **pop-up menu**, located on the **RADS Control panel**.
- ST Pcp** **Storm-Total Precipitation:** Displays the calculated **storm-total precipitation** from the **WSR-88D Build 9.0 Precipitation algorithm**. This feature is accessed from the **ST Pcp** button on the **PRECIP** **pop-up menu**, located on the **RADS Control Panel**.
- VIL** **Vertically Integrated Liquid (VIL):** Depressing this button on the **RADS Control Panel** displays a **VIL image**. For more information on how VIL is computed, see the **WSR-88D Algorithm Reference Guide**.
- VWP** **Vertical Wind Profile:** Displays image of vertical wind profile for current radar.

ELEMENTS OF AN IMAGE WINDOW

Figure 3.1 shows an image window with its elements marked. Each element of the window is discussed in this chapter, from the top of the window to the bottom. All image windows have many common elements, including a **Help Bar**, a **Tool Bar**, an **Image Area**, a **Color Key**, and **Image Information area**. Color Bars, the Image Information Area and Help Bars will vary in values and text displayed from image to image, as appropriate.

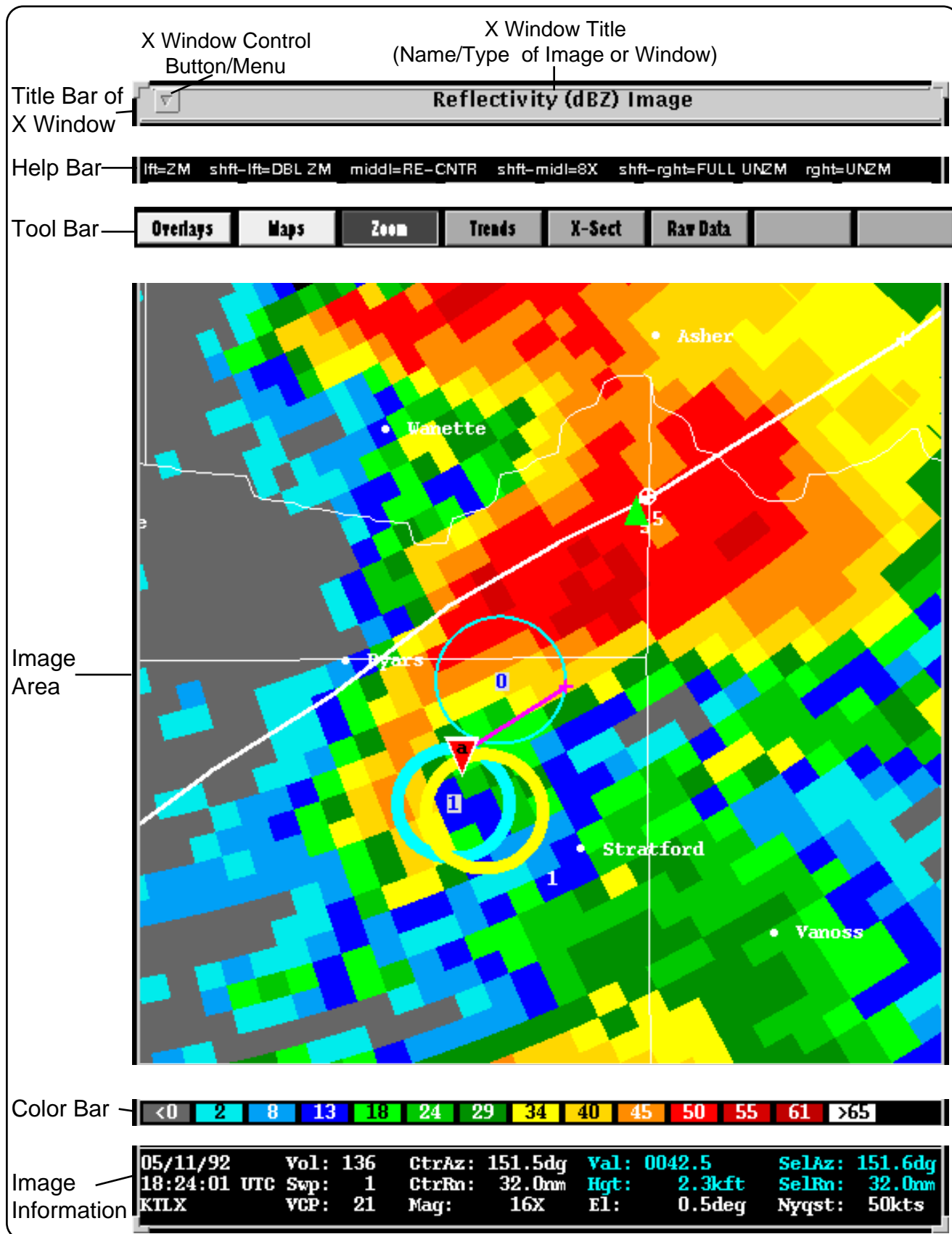


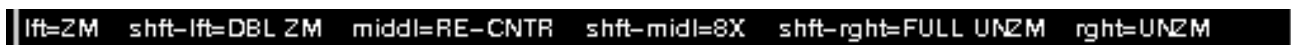
Figure 3.1: Exploded view of a reflectivity image window. Note that the Image Area, Help Bar, and Color Key vary with different images.

X WINDOWS TITLE AND COMMAND BAR



The X Window Title and Command Bar are located at the top of the **image window**. It contains the window title, which displays information about the image shown. Here the title bar is from a **reflectivity image**. Other types of images have appropriate titles.

THE IMAGE HELP BAR



The Image Help Bar changes with the Image Tool Bar function selected (see below for an explanation of the **Image Toolbar**). This Help Bar is an example from the Zoom Tool Bar function and provides an easy reference for use of the mouse when zooming an image. Note that if the <left-mouse> button is pressed, a regular zoom occurs, with the zoomed image centered on the coordinates that the mouse was denoting when the button was pressed. The <middle-mouse> button allows a user to click on a desired point and causes the image to be recentered at that point. Refer to the Image Help Bar frequently for information and descriptions of mouse functions.

THE IMAGE TOOL BAR



The **Image Tool bar** allows easy access to numerous data overlay and analysis features. The Image Tool Bar is the same for all types of **image windows**, except for the **VWP** and **Hodograph** windows. The **Overlays button** brings up a pop-up menu of algorithm overlays. The **Maps button** brings up a pop-up window of static maps overlays. The **Zoom, Trends, X-Sect, and Raw Data** buttons are “**mouse modes**,” which perform specific functions and change the behavior of the mouse in the image area. *Only one mouse mode is active at a time.* To exit a mouse mode for an image, you must choose another mouse mode.

It is important to note that features and meteorological products selected in an image window’s tool bar apply *only to that image window*. For example, using the image tool bar to display maps or storm products on the **radial velocity image** affects only that radial velocity image. It will not cause maps to be displayed on other image windows such as the **reflectivity** and **spectrum width images**, if activated. The exception is the **Link feature**, where **Zoom** and **Raw Data** functions apply to all linked windows.